PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

(Continued from p. 153.)

8 APRIL 1887. — The 128th meeting was held at 156 Brattle St., Cambridge, on Friday, 8 April, 1887. The president, Mr. J. H: Emerton in the chair.

In the absence of a quorum no business was transacted.

Mr. C. W. Woodworth showed photographs representing the venation of the wings of various coleoptera. The venation of the wings of the *adephaga* differs from that which pertains in the other coleoptera, with the exception of the *cupesidae*. Mr. Woodworth has devoted considerable time to this subject and says that he has had no difficulty in recognizing some of the families of the order by means of the venation of their wings. The result which will probably be obtained from his study promise to be of considerable value.

Mr. S. H. Scudder spoke of the importance of such a method of separation in the determination of the fossil forms of coleoptera, as in many cases the wings are the only parts well preserved.

Mr. Woodworth then stated that he has found another difference between the *adephaga* and the lower coleoptera. The ovarioles of the former series belong to the same type as those of the hymenoptera, diptera, lepidoptera and neuroptera, while a different type is found in the rest of the order and in all other insects, with the exception of the viviparous *aphidae*, the ovarioles of which, although said to resemble those of the hymenoptera, etc., appear rather to be intermediate between the two types above indicated.

Mr. Scudder showed his collection of American and European caterpillars.

Mr. Woodworth stated that he believed the color of the larvae of *Papilio cresphontes* to be protective.

Mr. Scudder recorded the capture of *Phy*eiodes batesii in the White Mts., in June, 1886, and remarked on the probable identity of this species and *P. tharos.*

Mr. R. Hayward showed specimens of *Aphodius pumilus*, from New Mexico, a species described by Dr. Horn in a monograph of the genus now in press. Mr. Hayward's specimens are from the valley of the Rio Animas. He also showed specimens of our two species of *Amphizoa* (A. insolens Lec. and A. lecontei Matth.) and remarked on the differences between them.

13 MAY 1887.—The 129th meeting was held at 61 Sacramento St., Cambridge, 13 May 1887; The president, Mr. J: H. Emerton in the chair.

Mr: S: H. Scudder showed an egg of *Theela* strigosa collected at Turkey Hill, Arlington, and also a drawing of it by Mr. Emerton. The egg was protected in a curious way by threads which fastened it to the twig on which it was laid.

Mr. R. Hayward exhibited specimens of various North American species of *Nebria*, and remarked briefly on the habit of *N. purpurata* and *N. trifaria* as observed by him in Colorado.

Mr. C: W: Woodworth exhibited a collection of *phalangidae* from Illinois.

10 JUNE 1887.—The 130th meeting was held at 61 Sacramento St., Cambridge, and was called to order by the president. Mr. J. H: Emerton.

Mr. J. H: Emerton showed some parasites of spiders in their various stages, which he had taken near Roberts Station, Waltham. From one of these parasites the hymenopterous imago had been obtained. (See *Insect life*, v. 1, p. 106-107.)

14 OCTOBER 1887.—The 131st meeting was held at 61 Sacramento Street, Cambridge; the president, Mr. J. H:Emerton in the chair. The publication of PSYCHE was discussed at some length.

11 NOVEMBER 1887. The 132nd meeting was held at 61 Sacramento St., Cambridge. In the absence of the president, Mr. George Dimmock was chosen chairman.

Nomination 144, that of Mr. W. S. Wads-

worth, of Cambridge, for active membership, was presented by Messrs. C. W. Woodworth and G : Dimmock.

The chair appointed Messrs. S: H. Scudder, J. II: Emerton, R. Hayward, C: W: Woodworth and G: Dimmock a committee to consider the feasibility of publishing PSYCHE.

Mr. C: W: Woodworth remarked on two larvae he had observed.

Mr. R. Hayward showed a specimen of *Erebus odora* from Lower California.

Mr. Dimmock spoke of a cocoon of a lepidopterous larva he had observed, which was made entirely of human hair.

9 DECEMBER 1887.—The 133rd meeting was held at 61 Sacramento St., Cambridge. The president, Mr. J. H: Emerton, in the chair.

The report of the committee appointed at the last meeting to consider the feasibility of continuing the publication of PSYCHE was presented by Mr. S: H. Scudder, chairman of the committee. The report was accepted and in accordance with the recommendations of the committee it was voted to begin a new volume with 1888.

Mr. S: H. Scudder read a letter from Miss Adele M. Fielde, and exhibited, among other specimens sent him by that lady from China, two specimens of a grasshopper (*Conocephalus acuminatus*), the chirp of which, as Miss Fielde aptly expresses it, "makes the heat andible."

Mr. Scudder showed some larvae and pupae of *Pieris rapae* which he has kept in a half and half mixture of glycerine and water since 1871. They still retained their color.

Mr. Holmes Hinkley showed some specimens of spiders which he had taken from the cells of a mud-wasp.

Mr. J. H: Emerton showed a specimen of *Lycosa kochii* which makes a noise by drumming on the leaves. The species lives amongst dead leaves in the woods and the drumming is supposed to be done with the palpi. The specimen in question was from Staten Island and was collected by Mr. W. T. Davis who would publish his observations

in the Proc. Nat. hist. assoc. of Staten Island Mr. Emerton said that he did not know of the occurrence of this spider in this vicinity.

Mr. J. W. Folsom stated that he had observed this spider near Arlington.

Mr. G: Dimmock showed a Swiss spider which had bitten him, causing considerable poisoning.

Mr. Emerton identified it as a species of *Tegenaria*. Mr. Emerton then examined the spiders shown by Mr. Hinkley and found amongst them several species, the majority being young Epeira. He remarked that spiders stored in the nests of mud-wasps remain pliable for some time.

Mr. C: W: Woodworth remarked that he had known instances where one of the spiders had recovered and devoured the rest.

Mr. Hinkley stated that he had examined the larvae of some *smerinthi* and observed the ichneumon larva feeding under the skin, and in a few hours the pupa was found on the outside. He then asked how this was brought about.

In answer to the inquiry, Mr. S: H. Scudder stated that the larva emerges and forms its cocoon on the outside in a very short time.

Mr. Woodworth asked what effect the warm weather would have upon insect life.

Mr. S: Henshaw showed a piece of bed ticking with a felting produced by Attagenus megatoma. The larva gnaws the feathers, forming a fine dust, and the felting is stated by Prof. C: V. Riley to be due to the mere mechanical process of beating and shaking.

COLORADO BIOLOGICAL ASSOCIATION.

(Continued from p. 228.)

REPORT ON ENTOMOLOGY—APRIL 1889. — The membership now numbers 61; two entomologists have become members during the month, Miss Emily L. Morton and Prof. James Cassidy. Four coleoptera, 749 hymenoptera, and a fossil thysanuran have been added to our Colorado list. The very numerous additions in hymenoptera are derived from a full list of the Colorado species drawn up with great care and labor by Mr. W: H. Ashmead, and now waiting publication.

A short 13th Report has been published, containing a figure of the "wound-gnat." Dr. John Hamilton has examined a small collection of Custer co. coleoptera, and finds therein a probably undescribed species of gyrinus. Mr. W: H. Ashmead has reported on some Custer co. hymenoptera, five of which are new species, one Vibrio coloradensis Ashm. being the first of its genus detected in the United States. In Wet Mountain valley, Pyrameis cardui has been out in great force; and contrary to all expectations, Colias eurytheme var. intermedia appeared on 28 April. Last year no orange forms appeared in the early spring, all were antumnalis. Photopsis aleanor Blake has appeared at light: this is a spring species in Wet Mountain Valley, being wholly supplanted by P. glabrella Cr. later in the year. An empty Smerinthus egg found on a willow leaf at West Cliff has aroused some curiosity, as S. astarte, the only known species in the district, was believed to feed on Populus. A larva of Hipparchia ridingsii was found hibernating under a rock in Custer co., and sent to Mr. W: H. Edwards, who reports it to be in good health, and it will no doubt form material for one of Mr. Edwards's admirable life-histories.

REPORT ON ENTOMOLOGY—MAY, 1889.— The recent election of officers and council has resulted as follows: *president*: C. F. Morrison, *sec'y*: T. D. A. Cockerell, *treas.*: H. G. Smith, Jr., *council*: C. H. Merriam, H. W. Nash, A. S. Packard, D. Gale, D. W. Park, and J. M. Coulter. The membership is now 65; two entomologists, Messrs. L. O. Howard and J. W. Tutt have joined during the month. The additions to the Colorado insect-fauna for May are rhopalocera, 1 var.; heterocera, 6 and 1 var.; homoptera, 1; and diptera, 3.

A good deal of work has been done which

cannot now be reported on fully. Galls collected at West Cliff have produced an abundance of hymenoptera and diptera, which will form material for an extensive account in the future. Galls of *Rhodites bicolor* Harr, have been especially prolific in chalcid parasites, as also have those of *Cecidomyia salicisstrobiloïdes* O.—S. Small flat leaf-galls on rose have produced *Rhodites rosaefolii* n. sp., as well as some chalcids.

An interesting Trypeta has been bred from woolly galls on Bigelovia. The sawfly reared from a larva, about 20 mm. long, light bluish green marked with yellow patches and black spots, found on willow in West Mountain Valley last year, has been indentified as a new species of Messa by Mr. Ashmead, and both imago and larva will be described fully hereafter as M. salicum n. sp. Among diptera, gonia exul Willist. was found at West Cliff 16 May, and 25 May, the curious pupae of a species of Microdon were found in a nest of Formica integra at the same place. A probably new species of Orthezia has turned up in an ant's nest in Custer co.-but of this more hereafter. Mr. H. G. Smith Jr., has sent specimens of Phyllotreta pusilla Horn (= albionica auct., non Lec.) from Denver, where they are injurious to the cultivated cruciferae. Pyractomena borealis appeared at West Cliff on May 26. It was found that the light of this beetle could be intensified at will by gently pressing the thorax and fore part of the abdomen between the finger and thumb. Pamphila uncas (kindly indentified by Mr. W. H. Edwards), was found abundantly on a dry beach above Grape Creek in Custer co., visiting the flowers of Senecio and Erysinum. Mr. H: Edwards has identified a new species of Aegeria from Custer co., which he will describe later.

T. D. A. Cockerell (Secretary).

No. 156 was issued 15 April 1889. No. 157-159 were issued 28 July 1889.